Remarks: Detailed Action

I.

In Item 4, the Examiner has required affirmation of the election of Group I, Claims 1~15. Applicant affirms the election, and has cancelled Claims 16~30.

II.

In Item 8, the Examiner has rejected Claim 9 under 35 U.S.C. §112 as being indefinite in view of the recitation of "inorganic filler". Claim 9 has been amended to recite "mineral filler", and in view of such amendment, Applicant respectfully requests that the Examiner withdraw the rejection of Claim 9 under 35 U.S.C. §112.

III.

In Item 10, the Examiner has rejected Claims 1~10 and 15 under 35 U.S.C. §102 as being anticipated by US 4,698,372 ("Moss").

Moss discloses a soft film formed from a composition containing (a) a matrix of a thermoplastic orientable polymer, (b) a particulate filler, and (c) an organic compound capable of being adsorbed on the surface of the filler. The polymer has a flexural modulus at 25°C of less than about 200 MPa.[1] The polymer is sufficiently flexible to form a useful film.[2] By contrast, the polymer included in the compositions of Claim 1~15 has a flexural modulus of at least about 1130 MPa.

Although Moss does disclose filled polymeric compositions, it is nevertheless readily seen that Claims 1~15 are patentably distinguished from Moss. There is no teaching or suggestion in Moss of the formation of a composition having all the features of Claims 1~15 in which is present a polymer having a flexural modulus of at least about 1130 MPa. Moss does not provide the artisan with any direction toward the compositions of Claims 1~15 since Moss requires polymers of low modulus to be able to make a soft film.

---

[1] Column 2, lines 5~6.
[2] Column 3, lines 23~25.

In view of the distinctions between Moss and Claims 1~15 discussed above, Applicants respectfully request that the Examiner withdraw the rejection of those claims under 35 U.S.C. §102.

IV.

In Item 13, the Examiner has rejected Claims 1~10 and 13~15 under 35 U.S.C. §103(a) as being unpatentable over US 4,740,538 ("Sekutowski") in view of Moss.

Sekutowski discloses an inorganic filler having separate deposits of an impact modifier and a coupling agent. The filler is incorporated into a polymer matrix to form a composition.

Although Sekutowski does disclose a flexural modulus for some of the compositions formed using the disclosed filler, Sekutowski has no teaching or suggestion of the use of a polymer having a flexural modulus of at least 1130 MPa to make such compositions. Sekutowski thus adds nothing of relevance to Moss in this regard since nothing in the combination of the two references provides the artisan with any direction toward, or appreciation of, the use of a polymer having a flexural modulus of at least about 1130 MPa to make a filled composition.

In view of these distinctions between Claims 1~10 and 13~15 and the combined disclosures of Sekutowski and Moss, Applicant respectfully requests that the Examiner withdraw the rejection of those claims under 35 U.S.C. §103(a).

V.

In Item 14, the Examiner has rejected Claims 1~6, 9~12 and 15 under 35 U.S.C. §103(a) as being unpatentable over US 4,456,710 ("Luders") in view of Moss.

Luders discloses polyoxymethylene-based molding compositions containing polyoxymethylene, an alkaline earth metal carbonate, and adhesion promoter that corresponds generally to an alkali metal salt or alkaline earth metal salt of certain sulfonic acids or alkyl-sulfuric acids.

Luders contains no teaching or suggestion of the use of a polyoxymethylene having a flexural modulus of at least 1130 MPa to make a polymeric composition. Luders thus adds nothing of relevance to Moss in this regard since nothing in the combination of the two references provides the artisan with any direction toward, or appreciation of, the use of a polymer having a flexural modulus of at least about 1130 MPa to make a filled composition.

In view of these distinctions between Claims 1~6, 9~12 and 15 and the combined disclosures of Luders and Moss, Applicant respectfully requests that the Examiner withdraw the rejection of those claims under 35 U.S.C. §103(a).

VI.

In Item 15, the Examiner has rejected Claims 1~10 and 13~15 under 35 U.S.C. §103(a) as being unpatentable over US 5,281,379 ("Noguchi") in view of Moss and Sekutowski.

Noguchi discloses a process for making a thermoplastic resin composition by melt kneading a thermoplastic resin and particles of an additive wherein the additive is introduced to a moving bed of granular or molten resin in the form of a gaseous or liquid fluid containing particles of 10 microns diameter or less.

Noguchi has no teaching or suggestion of the use of a polymer having a flexural modulus of at least 1130 MPa to make a polymeric composition. Noguchi thus adds nothing of relevance to Moss and/or Sekutowski in this regard since nothing in the combination of the three references provides the artisan with any direction toward, or appreciation of, the use of a polymer having a flexural modulus of at least about 1130 MPa to make a filled composition.

In view of these distinctions between Claims 1~10 and 13~15 and the combined disclosures of Noguchi, Moss and Sekutowski, Applicant respectfully requests that the Examiner withdraw the rejection of those claims under 35 U.S.C. §103(a).

VII.

Applicant has reviewed the prior art made of record but not relied on, and submits that it is of no greater pertinence to the claims as amended than the references discussed in detail above.

In view of the foregoing, Applicant submits that all of the Examiner's objections and rejections have been properly traversed, and that the claims are in condition for allowance, request for which is hereby respectfully made.

Respectfully submitted,

John A. Langworthy
Attorney for Applicant
Registration No. 32,255
Telephone: (302) 992-4362
Facsimile: (302) 992-5374

Appendix B
Clean Version of
Claims 1 and 9, as amended
37 CFR 1.121(c)(1)(i)

Sub B1 A1

1. (once amended) A composition comprising (a) a hydrocarbon polymer having a backbone comprising repeat units, at least 80 mol-% of which repeat units comprise one or more oxygen or nitrogen atoms disposed in said backbone, said polymer having a flexural modulus (as measured according to ASTM D-790) of at least about 1130 MPa; (b) about 1%-30% by volume of a mineral filler having an aspect ratio of 5 or less, the filler having an average equivalent spherical diameter in the range of about 0.1 to less than about 3.5 micrometers; and (c) a saturated organic acid, salt thereof, or a mixture thereof, at a concentration of at least about 0.5% by weight of the mineral filler.

A2

9. (once amended) The composition according to Claim 1 wherein the mineral filler is calcium carbonate or titanium dioxide.

Appendix A
Marked-Up Version of
Claims 1 and 9
37 CFR 1.121(c)(1)(ii)

---

1. (once amended) A composition comprising (a) a hydrocarbon polymer having a backbone comprising repeat units, at least 80 mol-% of which repeat units comprise one or more oxygen or nitrogen atoms disposed in said backbone, said polymer having a flexural modulus (as measured according to ASTM D-790) of at least about 1130 MPa; (b) about 1%-30% by volume of a mineral filler having an aspect ratio of 5 or less, the filler having an average equivalent spherical diameter in the range of about 0.1 to less than about 3.5 micrometers; and (c) a saturated organic acid, salt thereof, or a mixture thereof, at a concentration of at least about 0.5% by weight of the mineral filler.

9. (once amended) The composition according to Claim 1 wherein the ~~inorganic~~mineral filler is calcium carbonate or titanium dioxide.